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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/662,236	09/14/2000	Arihiro Takeda	1508.64743	3089
7590	01/20/2004		EXAMINER	
Patrick G. Burns Esq. Gree, Burns & Crain, Ltd. 300 S. WACKER DRIVE 25TH FLOOR Chicago, IL 60606			DUDEK, JAMES A	
			ART UNIT	PAPER NUMBER
			2871	
			DATE MAILED: 01/20/2004	

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/662,236	TAKEDA ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	James A. Dudek	2871	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) FROM  
 THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

1) Responsive to communication(s) filed on 21 August 2003.

2a) This action is FINAL.                    2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

4) Claim(s) 1-7 and 25-45 is/are pending in the application.

4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

5) Claim(s) \_\_\_\_\_ is/are allowed.

6) Claim(s) \_\_\_\_\_ is/are rejected.

7) Claim(s) \_\_\_\_\_ is/are objected to.

8) Claim(s) 1-7,25-45 are subject to restriction and/or election requirement.

#### Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. §§ 119 and 120

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

13) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  
 a) The translation of the foreign language provisional application has been received.

14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

#### Attachment(s)

1) Notice of References Cited (PTO-892)                    4) Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.  
 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)                    5) Notice of Informal Patent Application (PTO-152)  
 3) Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_.                    6) Other: \_\_\_\_\_

## DETAILED ACTION

### *Election/Restrictions*

Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 1-7, drawn to a liquid crystal display having controlling means and linear structures with a bend in the linear structure placed over the boarder of the pixel or not placed over a boarder of a pixel, classified in class 349, subclass 129.
- II. Claims 25-27, drawn to a liquid crystal display having compensator arranged along edges of projections, classified in class 349, subclass 117.
- III. Claims 28-30, drawn to a liquid crystal display having first domain defining means that when a voltage is applied aligns the liquid crystal to go away from a domain dividing means classified in class 349, subclass 129.
- IV. Claims 31-33, drawn to a liquid crystal display having an alignment layer that comprises different alignment forces in different regions, classified in class 349, subclass 129.
- V. Claims 34-41, drawn to a liquid crystal display having domain defining projections wherein a pre-tilt angle revealing process is applied to the alignment film by the bus lines, classified in class 349, subclass 129.
- VI. Claims 42-45, drawn to a liquid crystal display having a dielectric wherein the dielectric having a high dielectric constant portion, classified in class 349, subclass 129.

Inventions I and II-IV are related as subcombinations disclosed as usable together in a single combination. The subcombinations are distinct from each other if they are shown to be separately usable. In the instant case, invention \*\*\* has separate utility such as \*\*\*. See MPEP § 806.05(d).

Inventions I and II-VI are related as combination and subcombination. Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP § 806.05(c)). In the instant case, the combination as claimed does not require the particulars of the subcombination as

claimed because the subcombination does not rely on the details, outlined above, of the combination. The subcombination has separate utility such as passive liquid crystal displays.

Invention II and I, III-VI are related as combination and subcombination. Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP § 806.05(c)). In the instant case, the combination as claimed does not require the particulars of the subcombination as claimed because the subcombination does not rely on the details, outlined above, of the combination. The subcombination has separate utility such as liquid crystal beam steering devices.

Inventions III and I-II, IV-VI are related as combination and subcombination. Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP § 806.05(c)). In the instant case, the combination as claimed does not require the particulars of the subcombination as claimed because the subcombination does not rely on the details, outlined above, of the combination. The subcombination has separate utility such as welding mask incorporating liquid crystal cell.

Inventions VI and I-III, V-VI are related as combination and subcombination. Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP § 806.05(c)). In the instant case, the combination as claimed does not require the particulars of the subcombination as claimed because the subcombination does not rely on the details, outlined above, of the combination. The subcombination has separate utility such adjustable liquid crystal lenses.

Inventions V and I-IV, VI are related as combination and subcombination. Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP § 806.05(c)). In the instant case, the combination as claimed does not require the particulars of the subcombination as

claimed because the subcombination does not rely on the details, outlined above, of the combination. The subcombination has separate utility such as liquid crystal fresnel lens.

The inventions are distinct, each from the other because of the following reasons:

Because these inventions are distinct for the reasons given above and the search required for Group I is not required for Group II-VI, restriction for examination purposes as indicated is proper.

Because these inventions are distinct for the reasons given above and the search required for Group II is not required for Group I, III-VI, restriction for examination purposes as indicated is proper.

Because these inventions are distinct for the reasons given above and the search required for Group III is not required for Group I-II, IV-VI, restriction for examination purposes as indicated is proper.

Because these inventions are distinct for the reasons given above and the search required for Group IV is not required for Group I-III, V-VI, restriction for examination purposes as indicated is proper.

Because these inventions are distinct for the reasons given above and the search required for Group V is not required for Group I-VI, VI, restriction for examination purposes as indicated is proper.

Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

**If applicant elects group I, applicant must elect among the following species.**

This application contains claims directed to the following patentably distinct species of the claimed invention:

**(1) Species (1) is divided into two subspecies:**

- (a) The first subspecies is shown in Figure 15 as linear structures.
- (b) The second subspecies is shown in Figure 25 as slits.

**\*Applicant must elect one of these species first.**

Applicant is required under 35 U.S.C. 121 to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable. Currently, with respect to species (1)(a) and (1)(b) neither is generic.

**(2) Based on the above election, applicant must now elect between these species.**

**These species are generic versions of species (3) below. Species (2) comprising two subspecies:**

- (a) The first subspecies is shown as a bend portion put out from the edge of the pixel electrode in the figures. (Claim 6 is associated with this species.)
- (b) The second subspecies is shown as a bend portion not arranged at the edge of the pixel electrode. (Claim 7 is associated with this species.)

Applicant is required under 35 U.S.C. 121 to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable. **Currently, neither is generic with respect to the other but either is generic with respect to (3) below.**

**(3) Based on the elections of (1) and (2) above, applicant must elect one of the following subspecies. (3) is divided into two subspecies:**

- (a) The first subspecies is shown in Figure 26(a) as S=-1 (claims 1-4 are associated with this species.)
- (b) The second subspecies is shown in Figure 26(b) as S=+1 (claim 5 is associated with this species).

Applicant is required under 35 U.S.C. 121 to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable. Currently, although claims 6 and 7 are associated with distinct species, respectively, and applicant must elect between claims 6 and 7, claims 6 and 7 are associated with a generic version of species (3).

Applicant is advised that a reply to this requirement must include an identification of the species that is elected consonant with this requirement, and a listing of all claims readable thereon, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

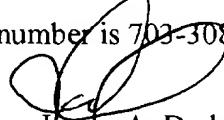
Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James A. Dudek whose telephone number is 308-4782. The examiner can normally be reached on 9:00-5:30.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert H. Kim can be reached on 703-305-3492. The fax phone number for the organization where this application or proceeding is assigned is 703-308-7721.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.



James A. Dudek  
Primary Examiner  
Art Unit 2871